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### (54) Safety device for a syringe assembly

(57) A syringe safety device (10) forms a fluid coupling between a sealed vial (14) and a syringe (24) and includes a tubular connector (18) having a first axial open end (18a) engaging the end of the vial (12) and a second, opposing open axial end (18b) releasably receiving a syringe (24) to use with the vial (12), the tubular connector (18) enclosing a sliding joint (22) having opposing axial ends (22a, 22b) and a passageway (56) between the ends, a first axial end (22a) configured to en-

gage an enlarged, blunt mounting end (20b) of a syringe needle (20), a second axial end (22b) configured to releasably engage at least a releasable needle receiver (30) on a distal end (32) of the syringe (24) without needle, the syringe (24) without needle being releasably removable from the sliding joint (22) after fluid coupling with the vial (14) through the passageway (56) of the sliding joint (22), without removal of the sliding joint (22) from the connector (18). The needle (20) is captured in the connector (18) with the sliding joint (22).

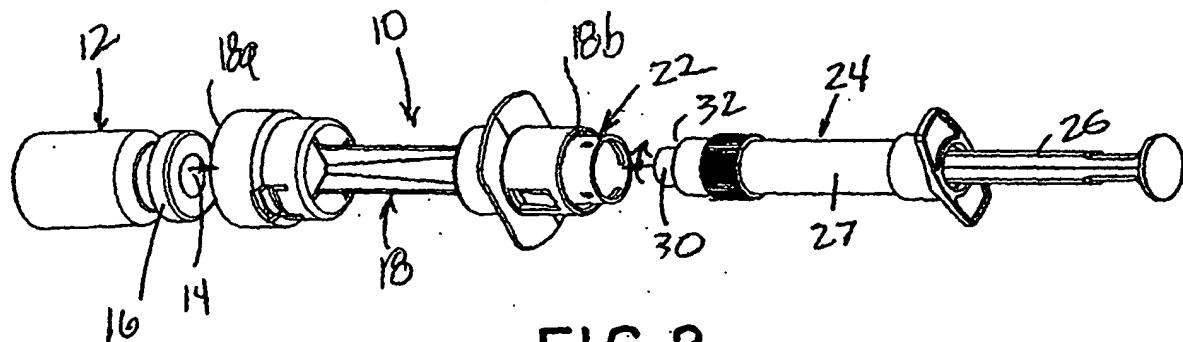


FIG. 2



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## EUROPEAN SEARCH REPORT

Application Number

EP 01 12 6279

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 00 54723 A (SEDAT ; ARNISSOLLE YVES (FR)) 21 September 2000 (2000-09-21)	1-3	A61J1/00 A61M5/178
Y	* page 4, line 27 - page 5, line 6 * * page 5, line 27 - line 31 * * page 6, line 1 - line 21 * * page 9, line 11 - line 23; figures * ---	4-6	
Y	FR 2 717 086 A (DEBIOTECH) 15 September 1995 (1995-09-15) * page 22, line 7 - line 12 * * page 24, line 19 - line 21; figures 12,13 *	4-6	
A	GB 2 235 135 A (INT MEDICATION SYSTEMS) 27 February 1991 (1991-02-27) * page 7, line 33 - page 8, line 9 * * page 8, line 19 - line 31; figures *	11	
A	US 3 938 518 A (TISCHLINGER EDWARD A) 17 February 1976 (1976-02-17) * column 2, line 35 - line 54; figures *	7-9	
A	US 2 326 490 A (PERELSON HAROLD N) 10 August 1943 (1943-08-10) * page 1, right-hand column, line 44 - page 2, left-hand column, line 8; figures *	10	
A	EP 0 417 988 A (BULL DAVID LAB) 20 March 1991 (1991-03-20) * column 9, line 48 - column 10, line 11 * * column 10, line 31 - column 11, line 3 *	12,13	A61J A61M
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	18 July 2003	Cametz, C	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone	T : theory or principle underlying the invention		
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P : intermediate document	& : member of the same patent family, corresponding document		

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18-07-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0054723	A	21-09-2000	FR	2790948 A1	22-09-2000
			AU	3300300 A	04-10-2000
			EP	1161217 A1	12-12-2001
			WO	0054723 A1	21-09-2000
			JP	2002538893 T	19-11-2002
FR 2717086	A	15-09-1995	FR	2715311 A1	28-07-1995
			FR	2717086 A1	15-09-1995
			AU	684544 B2	18-12-1997
			AU	7618094 A	27-03-1995
			BR	9407390 A	05-11-1996
			CA	2170160 A1	16-03-1995
			CN	1133003 A ,B	09-10-1996
			DE	69412492 D1	17-09-1998
			DE	69412492 T2	11-02-1999
			EP	0717611 A1	26-06-1996
			ES	2122321 T3	16-12-1998
			WO	9507066 A1	16-03-1995
			JP	9502116 T	04-03-1997
			JP	3325896 B2	17-09-2002
			RU	2141306 C1	20-11-1999
			US	5827262 A	27-10-1998
GB 2235135	A	27-02-1991	AU	5975490 A	28-02-1991
			CA	2023575 A1	25-02-1991
US 3938518	A	17-02-1976	NONE		
US 2326490	A	10-08-1943	NONE		
EP 0417988	A	20-03-1991	US	4994029 A	19-02-1991
			AT	97327 T	15-12-1993
			AU	629385 B2	01-10-1992
			AU	6108990 A	21-03-1991
			CA	2023921 A1	13-03-1991
			DE	69004641 D1	23-12-1993
			DE	69004641 T2	09-06-1994
			DK	417988 T3	28-03-1994
			EP	0417988 A1	20-03-1991
			ES	2045820 T3	16-01-1994
			FI	102144 B1	30-10-1998
			HK	38794 A	29-04-1994
			IE	903140 A1	27-03-1991
			JP	3149061 A	25-06-1991
			KR	165891 B1	15-01-1999
			NO	903961 A ,B,	13-03-1991

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 01 12 6279

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

18-07-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0417988	A	NZ 234986 A	23-12-1992
		SG 13994 G	10-06-1994
		US 5019052 A	28-05-1991
		ZA 9006800 A	31-07-1991